

REMARKS

Claims 1-10, 13-15, 17-23, 26-31, 40-45, 47-55, 58-63, 66, 67, 69, 75 and 76 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claims 59, 61, and 63 stand objected to for certain informalities. Applicant has cancelled Claims 61 and 63 and incorporated them into Claims 60 and 62, respectively. Applicant has made the appropriate corrections to Claims 59, 60, and 62 in accordance with the Examiner's suggestions, thereby rendering the objection moot. Claims 1-6, 13, 18-20, 27, 30, 49, and 53 have also been amended in the same manner as Claims 59, 60, and 62 because they included similar informalities.

REJECTION UNDER 35 U.S.C. § 103

Independent Claim 9

Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 1229692 ("the '692 reference") in view of Boyles et al. (U.S. Pat. No. 5,511,208; "Boyles") and Oguchi et al. (U.S. Pub. No. 2002/0067725 A1; "Oguchi"). This rejection is respectfully traversed.

Applicant maintains that the subject matter recited in current Claim 9 is not obvious from the '692 reference in view of Boyles and Oguchi. However, in order to further distinguish the invention as recited in Claim 9 from the combination of the '692 reference, Boyles, and Oguchi, Claim 9 has been amended so as to recite that if the

collective converting device which is disposed nearest to the OVPN terminating device is occupied, the next nearest collective converting device is selected. Support for this amendment can be found, for example, in embodiments 5, 16, and 25 of the present application (see, for example, page 54, second paragraph, page 66, last paragraph, and page 88, last paragraph to page 89, first paragraph of the specification).

The Examiner equates the plurality of collective converting devices recited in Claim 9 with gateway nodes in Boyles (see, for example, page 5, second paragraph of the Office Action and steps 166 and 168 shown in FIG. 4E of Boyles). However, Boyles fails to mention the situation in which the selected gateway node is occupied and fails to disclose or suggest the technical idea of searching for a new gateway node if the selected gateway node is occupied. Applicant believes that the other cited references also fail to disclose or suggest such a technical idea. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Independent Claim 49

Claims 49, 50, 52-54, 69/49 and 76/53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the '692 reference in view of Morinaga et al. (U.S. Pat. No. 6,785,263 B1; "Morinaga") and French et al. (U.S. Pub. No. 2003/0041167 A1; "French"). This rejection is respectfully traversed.

Claim 51 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the '692 reference in view of Morinaga, French, and further in view of Newell, Jr. et al. (U.S. Pat. No. 6,668,319 B1; "Newell"). This rejection is respectfully traversed.

Applicant asserts that the subject matter recited in current Claim 49 is not obvious from the '692 reference in view of Morinaga and French. However, in order to further distinguish the invention as recited in Claim 49 from the combination of the '692 reference, Morinaga, and French, Claim 49 has been amended so as to incorporate the limitation recited in dependent Claim 50. Claim 50 has been cancelled without prejudice or disclaimer. Claim 51 has been amended so as not to refer to Claim 50.

With respect to Claim 50, the Examiner points out column 11, lines 50 to 56, column 12, lines 19 to 25, and steps 301 and 311 in FIG. 5 (i.e., reception of SETUP, transmission of CONN, and reception of CONN-ACK) of Morinaga (page 10, last paragraph of the Office Action). However, Morinaga merely relates to the establishment of a call. Even if a combination of the '692 reference and French suggested allocation of an IP address and a VPNID as asserted by the Examiner, the technical idea of Morinaga is irrelevant to that of the combination of the '692 reference and French. Therefore, one of ordinary skill in the art would not have been motivated to combine the technical idea of transmitting CONN and CONN-ACK of Morinaga with the combination of the '692 reference and French. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Independent Claim 58

Claims 58, 59, 66/59, 69/59 and 76/58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the '692 reference in view of Miyabe (U.S. Pat. No. 7,024,113 B2; "Miyabe") and Oguchi. This rejection is respectfully traversed.

Applicant defers amending Claim 58 pending consideration of the following arguments.

With respect to the arguments based on Claim 58 which were made in the response to the previous Office Action, the Examiner provides the assertion recited on page 41, first paragraph of the Office Action. However, column 12, lines 64 to 67 of Miyabe merely mention the wavelength $\lambda 51$, which is used between an output of an OXC (optical cross-connect) 4 and an input of an OXC 5 as shown in FIG. 24D and FIG. 24E of Miyabe. In other words, Miyabe merely mentions the wavelength that is used in communications between OXCs. Such a technical idea of Miyabe is irrelevant to the wavelengths to be used in user's devices. Miyabe neither discloses nor suggests the claimed limitation that the base point device notifies the OVPN of information for the wavelengths to be used in the user's devices.

The Examiner also asserts that "Miyabe also teaches WDM" (page 41, first paragraph, line 10 of the Office Action). However, even if Miyabe teaches WDM, this does not mean that Miyabe suggests the technical idea of notifying information for the wavelengths which are transmitted under a multiplied condition. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Independent Claim 60

Claims 60-63, 66/61 and 66/63 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the '692 reference in view of Miyabe, Miller et al. (U.S. Pat. No. 6,212,568; "Miller"), and Oguchi. This rejection is respectfully traversed.

Applicant asserts that the subject matter recited in current Claim 60 is not obvious from the '692 reference in view of Miyabe, Miller, and Oguchi. However, in order to further distinguish the invention as recited in Claim 60 from the combination of the '692 reference, Miyabe, Miller, and Oguchi, Claim 60 has been amended so as to incorporate the limitation recited in dependent Claim 61. Thus, amended Claim 60 is directed to an OVPN system in which the base point device recited in current Claim 60 operates in conjunction with the OVPN terminating device recited in current Claim 61. Claim 61 has been cancelled without prejudice or disclaimer. Claim 66 has been amended so as not to refer to Claim 61.

With respect to Claim 61, the Examiner points out column 19, lines 44 to 52, column 12, line 63 to column 13, line 8, FIG. 19, and FIG. 24 of Miyabe (see page 29, last paragraph to page 30, first paragraph of the Office Action). However, column 19, lines 44 to 52 do not exist in Miyabe. In addition, column 12, line 63 to column 13, line 8 of Miyabe merely disclose that the OXC 5 notifies the OXC 4 of a wavelength which has been reserved for a new route. In contrast, in accordance with amended Claim 60, the OVPN terminating device inputs parallel signals which are divided from a series of serial signals into a plurality of converting sections, in accordance with information notified from the base point device (in particular, information that the serial signals are converted to the parallel signals). Such a claimed limitation is neither disclosed nor suggested not only in column 12, line 63 to column 13, line 8 of Miyabe but also the other portions of Miyabe.

With respect to the arguments based on Claim 60 which were made in the response to the previous Office Action, the Examiner asserts that "As presented in the

rejection of Claim 60, the combination of the '692 reference in view of Miyabe teaches serial signals that are converted to the parallel signals. Miller is applied to teach a notification that a signal is converted from one form to another form,..." (page 41, last paragraph of the Office Action). However, column 19, lines 44 to 52, column 12, line 63 to column 13, line 8, FIG. 19, and FIG. 24 of Miyabe pointed out with respect to Claim 60 (page 27, third paragraph to page 28, first paragraph of the Office Action) merely disclose the matters described above. Miyabe fails to even disclose or suggest conversion of serial signals into parallel signals, let alone the foregoing claimed limitation. For example, although the Examiner points out a wavelength demultiplexer 7 and a wavelength multiplexer 9 shown in FIG. 19 of Miyabe, similar to demultiplexed wavelength signals λ_1 to λ_M which are output from the wavelength demultiplexer 7 and demultiplexed wavelength signals λ_1 to λ_M which are input to the wavelength multiplexer 9, a wavelength-division multiplexed signal which is input to the wavelength demultiplexer 7 and a wavelength-division multiplexed signal which is output from the wavelength multiplexer 9 convey a plurality of wavelengths simultaneously. Therefore, Miyabe does disclose serial signals. Moreover, column 11, lines 4-11 of Miller (page 28, second paragraph of the Office Action) merely discloses a frames-follow flag indicating that multiple frames together comprise a super frame. In other words, Miller merely defines multiple frames as a super frame, and hence Miller neither discloses nor suggests conversion of signals. Moreover, the super frame of Miller is clearly different from parallel signals. Therefore, Miller also fails to disclose or suggest conversion of serial signals into parallel signals. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Independent Claim 62

Applicant maintains that the subject matter recited in current Claim 62 is not obvious from the '692 reference in view of Miyabe, Miller, and Oguchi. However, in order to further distinguish the invention as recited in Claim 62 from the combination of the '692 reference, Miyabe, Miller, and Oguchi, Claim 62 has been amended so as to incorporate the limitation recited in dependent Claim 63. Thus, amended Claim 62 is directed to an OVPN system in which the base point device recited in current Claim 62 operates in conjunction with the OVPN terminating device recited in current Claim 63. Claim 63 has been cancelled without prejudice or disclaimer. Claim 66 has been amended so as not to refer to Claim 63.

With respect to Claims 62 and 63, the Examiner provides no additional assertions and merely repeats the arguments made in the previous Office Action.

Amended Claim 62 includes the limitation of notifying information that parallel signals are transmitted under a wavelength-multiplied condition. Regarding this claimed limitation, the Examiner points out column 19, lines 44 to 52, column 12, line 63 to column 13, line 8, FIG. 19, and FIG. 24 of Miyabe (see page 31, last paragraph to page 32, first paragraph of the Office Action). However, as discussed above with respect to Claim 60, column 19, lines 44 to 52 do not exist in Miyabe, and column 12, line 63 to column 13, line 8 of Miyabe merely disclose that the OXC 5 notifies the OXC 4 of a wavelength which has been reserved for a new route. Therefore, Miyabe does not disclose or suggest the foregoing claimed limitation. Moreover, even if Miyabe teaches WDM as asserted by the Examiner with respect to Claim 58, this does not mean that

Miyabe suggests notification of information that parallel signals are transmitted under a wavelength-multiplied condition as recited in amended Claim 62.

Amended Claim 62 also includes the limitation that the OVPN terminating device inputs parallel signals which are divided from multiplied wavelength signals into a plurality of converting sections, in accordance with information notified from the base point device (in particular, information that the serial signals are converted to the parallel signals). However, the Examiner does not mention this claimed limitation with respect to Claims 62 and 63 (see page 30, second paragraph to page 33, first paragraph of the Office Action). Moreover, this claimed limitation is also recited in Claim 60, and, as can be understood from the discussion above with respect to Claim 60, Miyabe and Miller fail to disclose or suggest such a claimed limitation. Accordingly, Applicant requests reconsideration and withdrawal of the rejection.

Dependent Claims 10, 51-55, 59, 66, 67, 69, and 76

These claims should be allowed at least by virtue of their dependency on the independent claims.

Other amendments

Claims 1, 2, 14, and 49 have been amended so as to correct clerical errors.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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